

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-28. (Canceled).

29. (Previously Presented) A communication device having a plurality of protocol layers including a radio link control (RLC) layer and medium access control (MAC) layer, the RLC layer comprising:

a transmission buffer storing at least one service data unit of the RLC layer (RLC SDU) transferred from an upper layer; and

a segmentation module segmenting the at least one RLC SDU received from the transmission buffer into at least one protocol data unit of the RLC layer (RLC PDU) according to size information transferred from the MAC layer to the RLC layer, wherein the MAC layer is a lower layer of the RLC layer.

30. (Currently Amended) The communication device of claim 29, wherein a RLC transparent mode entity of the RLC layer transfers to the MAC layer at least one ~~MAC~~ RLC PDU amounting to a number requested by the MAC layer.

31. (Canceled)

32. (Previously Presented) The communication device of claim 30, wherein the RLC transparent mode entity receives the size and number information through a MAC-STATUS-Ind primitive from the MAC layer.

33. (Previously Presented) The communication device of claim 30, wherein the at least one RLC PDU is transferred to the MAC layer through a logical channel.

34. (Previously Presented) The communication device of claim 33, wherein the logical channel is any one of a dedicated control channel (DCCH), a dedicated traffic channel (DTCH), a common control channel (CCCH), a shared common control channel (SHCCH), a broadcast control channel (BCCH), and a paging control channel (PCCH).

Claims 35 and 36. (Canceled)

37. (Previously Presented) The communication device of claim 29, wherein the transmission buffer receives the at least one RLC SDU through a transparent mode service access point.

38. (Currently Amended) The communication device of claim 33, wherein the at least one ~~RCL~~RLC PDU is sent to a peer entity of a receiver side.

39. (Previously Presented) The communication device of claim 29, wherein the at least one RLC SDU is segmented by the segmentation module depending upon when a service is established.

40. (Previously Presented) The communication device of claim 29, wherein an allowable size for the at least one RLC PDU is decided based on transmit formats of a transport channel.

41. (Previously Presented) The communication device of claim 29, wherein the at least one RLC PDU provided by the segmentation module comprises one complete RLC SDU or segments of one complete RLC SDU.

42. (Previously Presented) The communication device of claim 29, further comprising:

a receiver buffer storing at least one RLC PDU received from the MAC layer; and

a reassembly module reassembling the at least one RLC PDU received from the receiver buffer into at least one RLC SDU.

Claims 43-51. (Canceled).

52. (Previously Presented) A data processing method in a wireless communication device having a plurality of protocol layers including a radio link control (RLC) layer and a medium access control (MAC) layer, the method, comprising:

storing at least one service data unit of the RLC layer (RLC SDU) transferred from an upper layer in a transmission buffer;

segmenting the at least one RLC SDU received from the transmission buffer into at least one protocol data unit of the RLC layer (RLC PDU) according to size information transferred from the MAC layer to the RLC layer, wherein the MAC layer is a lower layer of the RLC layer; and

providing the at least one RLC PDU to the MAC layer.

53. (Previously Presented) The method of claim 52, wherein the RLC layer provides to the MAC layer RLC PDUs amounting to a number requested by the MAC layer.

54. (Canceled).

55. (Previously Presented) The method of claim 54, wherein the RLC layer receives the size and number information through a MAC-STATUS-Ind primitive from the MAC layer.

56. (Previously Presented) The method of claim 52, wherein the at least one RLC PDU is provided to the MAC layer through a logical channel.

57. (Previously Presented) The method of claim 56, wherein the logical channel is any one of a dedicated control channel (DCCH), a dedicated traffic channel (DTCH), a common control channel (CCCH), a shared common control channel (SHCCH), a broadcast control channel (BCCH), and a paging control channel (PCCH).

Claims 58 -59 (Canceled).

60. (Previously Presented) The method of claim 52, wherein the transmission buffer receives the at least one RLC SDU through a transparent mode service access point.

61. (Previously Presented) The method of claim 52, wherein the at least one RLC SDU of the transmission buffer is segmented by a segmentation module to provide the at least one RLC PDU depending upon when a service is established.

62. (Previously Presented) The method of claim 52, wherein an allowable size for the at least one RLC PDU is decided based on transmit formats of a transport channel.

63. (Previously Presented) The method of claim 52, wherein the at least one RLC PDU provided by the segmentation module comprises one complete RLC SDU or segments of one complete RLC SDU.

Claims 64-74. (Canceled).

75. (Currently Amended) The method of claim 52, wherein the at least one RLC PDU ~~unit~~ is transferred to the MAC layer in each transmission time interval (TTI).

76. (Previously Presented) The method of claim 75, wherein all RLC PDUs segmented from a RLC SDU are transferred to the MAC layer in a transmission time interval (TTI).

77. (Previously Presented) The communication device of claim 30, wherein the RLC transparent mode entity transfers the at least one RLC PDU to the MAC layer in each transmission time interval (TTI).

78. (Previously Presented) The communication device of claim 77, wherein all RLC PDUs segmented from a RLC SDU are transferred to the MAC layer in a transmission time interval (TTI).